

CLAIMS

Having described and disclosed my invention, I claim:

25. A document management system that comprises:
one or a plurality of parsing engines that parse documents contained in data streams fed into said parsing engines, each of said parsing engines contains mapping programs to map each page of an input document into one or a plurality of predetermined presentation zones following the presentation template, parsing programs to parse the presentation of each presentation zone into one or a plurality of output presentation formats determined by the presentation template, and reconstructing programs to reconstruct the completed presentation of said page in one or a plurality presentation options by retrieving and placing selected output presentation formats called for by the specific presentation option or options into each presentation zone following the presentation template; the output presentation format options comprise: figure in image presentation format; text in text format describing the text content, in this format, the recognition of text symbols is required, and the text can be regenerated with different fonts and sizes; mathematic equation presentation in executable equation format; spreadsheet presentation in executable calculation spreadsheet format; blank presentation format showing blank; and file inserting format for inserting pre-generated file;
one or a plurality of repository engines to store the output data sent from the

parsing engines, each of said parsing engines may retrieve the output data of a document parsed by another parsing engine and reconstruct said document.

26. A document management system of claim 25 wherein the presentation zone categories comprise:

static figure in image presentation format zone wherein the figure images are unchanged with every document of the same type and are presented in image presentation formats;

dynamic figure in image presentation format zone wherein the figure images may vary with every document and are presented in image presentation formats;

static text in text format presentation zone wherein the original text contents remain unchanged for every document of the same type and must be preserved during the parsing process, the text is presented in text format and can be regenerated with different text fonts and sizes;

dynamic text in text format presentation zone wherein the original text contents may vary with every document and must be preserved during the parsing process, the text is presented in text format and can be regenerated with different text fonts and sizes;

executable equation format zone wherein text and standard mathematical symbols such as +, -, x, /, =, and % form executable equations;

executable calculation spreadsheet format zone wherein data is formed into columns and rows of spreadsheets that can perform executable calculations; no parsing with blank presentation zone wherein the output presentation is

blanked; and

no parsing with file inserting format zone wherein the output presentation is reconstructed with pre-generated data files.

27. A document management system of claim 26 wherein the parsing process further comprises document resume parsing process, which parses the resume zones containing the document key descriptive attributes into text format presentation following the resume template, the output data is stored as resume file.

28. A document management system of claim 27 wherein the parsing process further comprises document indexing parsing process, which parses the indexing attribute zones containing the document key indexing attributes into text format presentation following the indexing template, the output data is stored as indexing file.

29. A document management system of claim 28 wherein the document indexing attributes include the organization identification, the document identification, the user identification, the account identification, and the document type identification.

30. A document management system of claim 29 wherein the parsing engines contain the presentation templates, the resume templates and the indexing

templates of documents to be parsed by said parsing engine, the indexing template is identical for all documents, the presentation templates and the resume templates vary with the organizations and the document types, and are stored with two indexing attributes: the organization identification and the document type identification.

31. A document management system of claim 30 wherein the parsing process comprises:

load the indexing template;

parse the document indexing attribute zones to identify the organization identification and the document type identification;

load the resume template;

parse the resume zones, collect, and store the resume data;

load the presentation template; and

parse the presentation zones, collect, and store the presentation data.

32. A document management system of claim 31 wherein the image reconstruction process comprises:

load the presentation template; and

retrieve the presentation data and reconstruct the document image following the presentation template.

33. The document management system of claim 28 wherein the repository

engine contains three directories: the indexing directory that stores the indexing files, the resume directory that stores the resume files and the document directory that stores the document files containing the output document presentation data.

34. The document management system of claim 33 wherein the storage hierarchy of the indexing directory is the organization identification, the user identification, and the file name is the document identification.

35. The document management system of claim 33 wherein the storage hierarchy of the resume and document directories is the organization identification, and the file name is the document identification.

36. The document management system of claim 34 wherein the storage hierarchy of the resume and document directories is the organization identification, and the file name is the document identification.

37. The document management system of claim 36 wherein the document file searching process comprises:
entering the indexing directory;
using two indexing attributes: the organization identification and the user identification to search and open the indexing data of all documents belong to the said user;

from the indexing data of indexing files, using other indexing attributes such as document type identification, account identification and date to determine the specific file that is searched for, and identify the document identification for the next step;

entering the resume and document directories; and

searching and retrieving the resume and document files by using two indexing attributes: the organization identification and the document identification.

38. The document management system of claim 36 wherein the document file searching process comprises:

the user inputs the organization identification and the user identification;

the repository engine enters the indexing directory, retrieves the indexing attributes data of all documents belong to said user in said organization, constructs, and displays an indexing table, which contains all indexing attributes

of all document in an organized fashion following a predetermined grouping hierarchy;

the user selects the document using other indexing attributes; and

the repository engine enters the resume and document directories and uses the organization identification and document identification to locate and retrieve the resume and document files of the document selected by the user.

39. A document management system of claim 29 wherein the static figures and text in image presentation format are generated in advance and stored in the

parsing engines with two indexing attributes: organization identification and document type identification and the zones containing said static figures and text are designated as No parsing with file inserting format by the presentation templates; during the reconstruction process, the static figures and text are retrieved and inserted back into said zones following the presentation templates.

40. A document management system of claim 26 wherein the zones containing the document key descriptive attributes are parsed into text format presentation.

41. A document management system of claim 26 wherein the zones containing the document key indexing attributes are parsed into text format presentation.

42. A document management system of claim 41 wherein the zones containing the document key descriptive attributes are parsed into text format presentation.

43. A document management system that comprises:
one or a plurality of parsing engines that parse documents contained in data streams fed into said parsing engines, each of said parsing engines contains mapping programs to map each page of an input document into one or a plurality of predetermined presentation zones following the presentation template, parsing programs to parse the presentation of each presentation zone into one or a plurality of output presentation formats determined by the presentation template, and reconstructing programs to reconstruct the completed presentation of said

page in one or a plurality presentation options by retrieving and placing selected output presentation formats called for by the specific presentation option or options into each presentation zone following the presentation template; one or a plurality of repository engines to store the output data sent from the parsing engines; and one or a plurality of document acquisition engines that collect document presentation data from document generators, convert data into one single format, envelop data into data streams and send said data streams to the parsing engines.